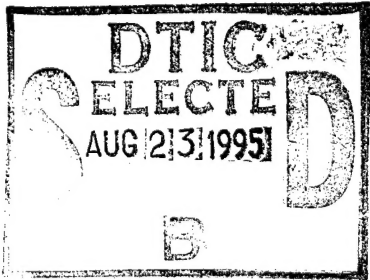


REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C		7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207	
8. Title (Include Security Classification): OPERATION AVALANCHE: PRELUDE TO STALEMATE A CASE STUDY IN OPERATIONAL ART (U)			
9. Personal Authors: MARY TRACY, CNW 95			
10. Type of Report: FINAL		11. Date of Report: MAY 16, 1995	
12. Page Count: 17 (PLUS 6 ADDENDA)			
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: COMBINED, JOINT, OPERATIONS, AVALANCHE, SALERNO, AMPHIBIOUS, WORLD WAR II			
15. Abstract: THIS CASE STUDY EXAMINES OPERATION AVALANCHE, THE INITIAL PHASE OF THE ALLIED CAMPAIGN IN ITALY, AS A CASE STUDY IN OPERATIONAL ART. AS A JOINT AND COMBINED AMPHIBIOUS OPERATION, AVALANCHE PROVIDES USEFUL LESSONS FOR FUTURE WARFARE IN A LONG LITTORAL AND A WELL-DEFENDED ENEMY.			
			
16. Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
18. Abstract Security Classification: UNCLASSIFIED			

(Unclassified)

NAVAL WAR COLLEGE
Newport, R.I.

OPERATION AVALANCHE: PRELUDE TO STALEMATE
A CASE STUDY IN OPERATIONAL ART

by

Mary Tracy

Department of State

June 1995

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Operations Department.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Paper directed by Captain D. Watson, USN, Chairman,
Operations Department.

Captain Paul Romanski, USN, Adviser

Signature

Mary Tracy

May 16, 1995

19950822 117

Accession For	
WILL GRANT	<input checked="checked" type="checkbox"/>
WILL RAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution	
Availability Codes	
Dist	Avail and/or Special
A-1	

INTRODUCTION.

Even General Mark Clark, a key figure in the planning and execution of Operation AVALANCHE, called it "a near disaster."¹ AVALANCHE, the main thrust of a three-pronged amphibious invasion that opened the Allied campaign against mainland Italy in early September 1943, had begun in calm seas and high hopes. Five days later, those hopes were dashed; instead of Christmas in Rome, the Allies faced a costly war of attrition whose ultimate costs may have outweighed the strategic benefits.

Although Clark's forces eventually took Naples--their original objective--some three weeks behind schedule, they failed to exploit their initial lodgment and had to be rescued by a concerted last-minute effort and infusion of resources. By year's end, they had advanced only 70 miles, where they remained stalled in "mountains and mud"² for nearly nine months.

Given the fog and friction of warfare, there are few certainties in its outcome. Nevertheless, history has shown repeatedly that the commander who pays careful attention to the precepts of "operational art" can often tip the scales of fate in his favor. Inattention to these precepts, on the other hand, almost certainly invites defeat.

Operation AVALANCHE, planned and executed by an Allied team with little in common other than a desire to defeat Hitler, limited experience in working together, and resources that were both inadequate and ill-tailored for the task at hand, was replete with mistakes. Strategically, it failed to maintain the

momentum of the victories in Africa and Sicily; operationally, it produced only indecisive results--and 13,000 Allied casualties.

Examining Operation AVALANCHE as operational art will show how a combination of factors--a strategic leadership whose fundamental philosophic differences and mutual suspicions resulted both in a tendency to micromanage and a failure to set clear objectives for the operational commanders; weaknesses in operational command structure and relationships that negatively affected preparation and execution of the plan; inadequate attention to operational thinking, and failure to apply some of the most fundamental principles of war--all combined to increase the dangers in an operation that by its very nature was already highly risky. Today, the constrained resource environment and increased likelihood of future battle by combined, joint forces on a well-defended littoral make the lessons of AVALANCHE as relevant as they were 50 years ago.

BACKGROUND. THE STRATEGIC SETTING

An overview of the strategic setting provides important clues as to why AVALANCHE ultimately failed, for the leadership style and decisions of top Allied officials had a decisive impact on the planning and conduct of the operation. From the outset, there were significant differences of opinion among the Allies over how best to conduct the war--whether to focus on Europe or the Pacific, on Northern Europe or the Mediterranean. The British had always tilted toward the Mediterranean, partly because of its strategic importance for their Empire, partly out

of a reluctance to commit themselves to another direct invasion of France, where they had suffered such grievous losses in World War I. The Americans, on the other hand, wanted to focus on northern Europe and conserve resources for the Pacific war.

The idea of invading mainland Italy originated in late 1942, when Churchill first floated the idea of attacking the "soft underbelly"³ of Hitler's empire as a means of exploiting the success of TORCH in North Africa and satisfying Stalin's demands for a second front. Because of strong disagreements on the future of Mediterranean operations, Allied leaders tiptoed around the issue for the next six months. At Casablanca in January '43, they compromised on a followup invasion of Sicily (HUSKY) in exchange for a renewed British commitment to OVERLORD. Sicily, however, was to be "an end in itself, not a springboard for Italy"⁴--its sole objective to secure Mediterranean sea lanes.

Five months later the Allies compromised again at their next meeting in Washington (TRIDENT). Recognizing the need to fill a lengthy hiatus between HUSKY and OVERLORD (now set for mid-1944), the Americans reluctantly agreed to a vaguely-worded directive instructing Eisenhower, the Allied Supreme Commander in the Mediterranean, to plan operations to exploit HUSKY "as are best calculated to eliminate Italy from the war and contain the maximum number of German forces."⁵ The directive also set limits on resources, calling for removal of seven divisions from the Mediterranean by mid-November, and setting a cap of 10 divisions for Italy.⁶

Anxious for a stronger commitment, Churchill, with U.S. Army Chief Marshall in tow, flew to Eisenhower's headquarters in Algiers to press his case. Although Eisenhower had begun to look more favorably on a mainland invasion, Marshall remained cautious. Without committing himself, Marshall directed Eisenhower to set up two planning staffs, one to look into an operation against Corsica/Sardinia, the other to examine the feasibility of a mainland assault. Eisenhower split the planning effort on national lines, assigning Corsica/Sardinia to U.S. planners, and the mainland (focusing on the heel or toe of Italy) to the British.⁷

Beginning in July, events moved swiftly. HUSKY, launched on July 10, initially met little resistance from the Italians. Strikes in major Italian cities seemed to indicate that the Germans were losing their grip, and Italian government officials began secret peace negotiations with the Allies. For the first time, a mainland invasion seemed possible with the limited resources at hand.

Buoyed by these developments and indications from the ULTRA codebreaking operation that the Germans would withdraw to the Alps if Italy defected, Allied military leaders began to see the merits of a new British proposal to invade farther up the boot near Naples. This idea was seconded by U.S. Air Chief Arnold, who believed that the opportunity to gain control of key Italian airfields would greatly enhance the strategic bombing offensive against Germany.⁸

The Allied military leaders (the Combined Chiefs of Staff (CCS), comprised of the service chiefs of both nations) then considered three alternative sites. None was ideal, and they settled on Salerno--the only one within operational reach of land-based aircraft on Sicily--after strong pressure from the Air Chiefs.

Mussolini's fall on July 25 clinched the decision. The next day, the CCS directed Eisenhower to proceed with plans for Salerno (now christened AVALANCHE),⁹ and BAYTOWN, a subsidiary operation. The BAYTOWN force, from Montgomery's British Eighth Army, was to land at the toe of Italy and advance overland to link up with Gen. Mark Clark's Fifth Army, a combined U.S.-British force, for the final push to Naples. Eisenhower directed that BAYTOWN should begin "as soon as possible" and set September 3 for Salerno, the date determined by the timing of the moon and the availability of landing craft.¹⁰ (Eisenhower left the exact timing of BAYTOWN to his deputy, British General Alexander, and soon regretted it. Montgomery's landing was "ten days later than I had hoped...if we could have saved a few days, our Salerno problems would have been much easier to solve," he lamented.¹¹

Allied leaders meeting in Quebec (QUADRANT) approved these plans in mid-August, reiterating their caveat about resources. With only a few days remaining, planners on the various staffs--Clark's Fifth Army, Montgomery's Eighth Army, Eisenhower's Headquarters, and the component commands--worked feverishly to refine their plans.

COMMAND RELATIONSHIPS, PERSONALITY PROBLEMS. (see Fig.1) Many of the problems with the planning and execution of AVALANCHE can be traced to the convoluted Allied command organization, characterized as top-heavy and politically tortuous, complicated by the presence of powerful personalities and prima donna generals.¹² Below the political leadership (President Roosevelt and PM Churchill) was the CCS, which was responsible for turning strategic policy into practical plans.¹³ Eisenhower, the Mediterranean Theater commander, reported directly to the CCS.

Directly under him in the Allied theater organization were three component commanders--all British. One, Ground Forces commander General Sir Harold Alexander, also served nominally as Eisenhower's deputy. (This pattern was a typical solution to the problem of coordinating the allied effort; British and U.S. commanders generally alternated throughout the staff and component system).

Eisenhower, regarded as a good manager rather than an inspired leader, tended to solve problems by delegating authority and farming out studies among his subordinates.¹⁴ To oversee planning and execution of the Italian campaign, he tapped Alexander, a courtly but indecisive man unable or unwilling to discipline his subordinates.¹⁵ "No one ever knows what he does want, least of all his own staff; in fact he does not know himself," griped Montgomery.¹⁶

For whatever reasons, Alexander failed to get a grip on either the operational planning or execution process. His

subordinate commanders did more or less as they pleased, and Eisenhower did not enforce organizational discipline, continuing to allow the other component commanders, who had subordinate roles in AVALANCHE, to deal directly with him.

Detailed planning was carried out on several levels, at Eisenhower's HQ level, at Clark's HQ, and under the component commanders. Air component commander Tedder especially felt free to exercise planning and command authority over the operation as he saw fit.¹⁷ The result, as Clark said: "Never were so few commanded by so many."¹⁸

Alexander's inability to control either Tedder or the strong-willed Montgomery, his direct subordinate in the ground forces, were to have fateful consequences for AVALANCHE. In his memoirs, Clark complained bitterly about this situation, correctly identifying the lack of unity of command as responsible for the subsequent "grave difficulties" he faced.¹⁹ Failure to integrate the air element proved especially vexing in both the planning and execution stages. No specific air staffs had worked at the subordinate level with ground and naval commanders during the planning stage, resulting in subsequent severe problems in communication and air support for the ground forces.²⁰

Not the least of the planning problems was the simple physical problem of coordination. Eisenhower was headquartered in Algiers, while Clark was near Oran, 300 miles to the west. Alexander was in Sicily, Navy component commander Cunningham in Malta and Tedder in Bouzarea.

PLANNING THE OPERATION: OPERATIONAL DESIGN

Before we embark on major operations on the mainland of Europe, we must have a master plan and know how we propose to develop those operations. I have not been told of any master plan and I must therefore assume there was none.

Bernard Montgomery, diary
entry, September 5, 1943²¹

Montgomery assumed correctly. Strategic decision makers, driven more by opportunism than logic and constantly horsetrading among themselves, never set clear, achievable strategic goals for the Italian campaign. Planning for the potentially risky amphibious operations was done on a piecemeal, ad hoc basis, with objectives and resources added and subtracted willy-nilly as the situation evolved.

When the CCS finally blessed the idea of a two-pronged invasion, AVALANCHE planners were given the mission to capture and open the port and airfield of Naples, and to join up with Montgomery's army advancing from the south.²² The only modification to the objectives set at TRIDENT (taking Italy out of the war and tying up German divisions)²³ was the addition of the goal of securing air bases that could be used in the strategic bombing of Germany,²⁴ an objective later assigned to SLAPSTICK.

Eisenhower chose U.S. General Clark to plan AVALANCHE. The CCS had already selected the Bay of Salerno as the point of entry for the invasion. The site, 30 miles south of Naples, is a long crescent of gently sloping beach opening to a shallow plain that is divided by a deep, wide river and ringed by a great wall of

mountains. The topography offers a significant advantage to the defender and greatly limits maneuver room.

Clark's staff came up with a concept that called for three separate, simultaneous pre-dawn landings on the Salerno beaches on September 9 (see Fig. 2). At the far north, on the mountainous Sorrento peninsula, two special purpose brigades of U.S. Rangers and British commandos were to move rapidly inland across the mountains to take the exits to the plain of Naples. The main assault was to be made by two separate infantry forces--the British X corps, consisting of two divisions (4th and 56th) on the north; and the U.S. VI Corps (the untested 36th Division) on the south. On the assumption that the beachhead would be consolidated the first day, elements of the 45th Division, which had fought in Sicily, were held in floating reserve, scheduled to land the next day.²⁵ The British force had as its goal to open the port of Salerno and the Montecorvino airport, thus providing forward bases for the next phase of the assault, while the U.S. force--whose initial landing was 10 miles to the south--was to protect the flanks of the northern force.

Clark had originally wanted a larger force in the south, but was constrained by the lack of landing craft. He also wanted to drop the 82nd Airborne division behind enemy lines near Naples to interdict enemy reinforcement, but at the last minute Eisenhower withdrew this force in order to conduct an action near Rome. (Eisenhower later changed his mind, but Clark did not discover until several days after the invasion had begun that the 82nd was

again available. Finally called into action on the 14th, the 82nd was instrumental in helping Clark's beleaguered forces with their final breakout from the beachhead).

The assault forces were reduced still further by another unexpected decision. As the convoys moved toward Salerno on September 6, Eisenhower agreed to a last-minute request from his naval component chief (British Admiral Cunningham) to add a third prong to the attack--a landing on the instep at Taranto, with the goal of advancing up the east coast to take the airfields at Foggia. Diversion of bombers and landing craft for this operation (SLAPSTICK) further limited Clark's ability to shore up his wavering forces.²⁶

PLANNING ASSUMPTIONS: PLANNING FOR THE BEST CASE...

The plan for Operation AVALANCHE anticipated that Clark's Fifth Army, joined by Montgomery's Eighth Army, would close in on Naples five days after D-Day. But Clark had misjudged badly, overestimating both his own ability to consolidate his gains and move forward, and the ability of Montgomery's forces (and, one might say, Montgomery's willingness) to cover 200 miles of rugged terrain in a week. More seriously, he had based his plans on assumptions about his enemy's intentions, not its capabilities. Clark expected to find a weak Italian force, backed by a maximum of eight German divisions--forgetting to include the 60,000 troops that had escaped from Sicily, and discounting the advantage to the Germans of interior Lines of Communication. He

had incorrectly identified the enemy's Center of Gravity as the Italians, and he paid dearly for this mistake.

Despite warnings from a pre-invasion reconnaissance team that had discovered a heavy concentration of mines in the Bay,²⁷ Clark's optimism never flagged. Even in retrospect he remained astonished at how well prepared the Germans had been.²⁸ The Germans, using some of the same assumptions the Allies had, had correctly predicted an attack on Salerno and had already begun to beef up coastal defenses before they learned of the Italian armistice.²⁹

...AND ENCOUNTERING THE WORST. Although the initial landings were relatively easy, Clark's force was simply not sufficient to accomplish all the tasks he had set for it. Despite the fact that their initial force was smaller, the Germans, under the able leadership of von Vietinghoff and Kesselring ("the best general on either side in Italy"³⁰) moved quickly and decisively, reinforcing their forces from both the north and south and concentrating them to exploit their enemy's greatest vulnerability--the five-mile gap between the X and the VI Corps that still remained three days after D-Day. (Fig. 3)

By the 13th, the Germans had driven the Allied forces almost back to the sea, prompting a panicked Clark to begin preparations for a withdrawal. Only a last-minute application of concentrated Allied firepower from land, sea and air (including a direct order from Eisenhower to Tedder to concentrate the full strength of his forces³¹), the fierce courage and determination of individual

soldiers--and a good deal of luck--turned the tide. On September 18, the Germans, concluding that the costs of holding the Salerno plain now outweighed the benefits, reverted to their original plan and began to withdraw in good order to a better defensive line north of Naples, meanwhile slowing the Allied advance with effective rear-guard actions.

The Allies finally reached Naples on October 1, but were unable to put the heavily damaged port in operation until the end of the month. By then, however, autumn rains had set in, and further progress was impossible.

PRINCIPLES OF WAR: COMMON SENSE IS GOOD SENSE

The essential usefulness of an amphibious operation stems from its mobility and flexibility. The amphibious operation exploits the element of surprise and capitalizes on enemy weaknesses by projecting and applying combat power at the most advantageous location and time. Joint Pub 3-02.

Certainly Clark cannot be blamed for all the errors in AVALANCHE, but his inattention to some of the cardinal principles of war in formulating his operational plan increased the chances that it would fail. Among some of the glaring omissions:

--MASS AND CONCENTRATION: With manpower and assault vehicles in short supply, Clark's decision to disperse his forces so widely is puzzling. The initial 10-mile gap between the two sectors of the invasion force simply proved too wide to fill, and the amount of defensive effort needed to link up these forces meant that the his forces could not sustain their forward momentum. One might wonder whether Clark's forces would have done better had they all

landed sequentially to the north of the Sele river, which divides the plain and forms a natural defense barrier. (Anticipated congestion in the Bay was a determining factor in the decision to disperse the force, but concentration in the north and a better sequencing of landings might have been more effective against the German counterattack.)

--SPEED AND MANEUVER. Essential to the idea of amphibious warfare are the concepts of speed and maneuver. Not only were Clark's forces too busy consolidating to move forward quickly, but the Salerno plain itself was not conducive to maneuver. The terrain had trapped them, requiring them to go on the defensive.

--SURPRISE. Clark's plan included little in the way of deception, and his misuse of tactical surprise significantly increased the vulnerability of his forces. The only real attempt at deception came in the form of a two-ship naval barrage north of Naples, which the Germans correctly ignored. Clark's personal decision to withhold naval gunfire prior to VI Corps landing has been roundly criticized.³² Despite the fact that VI Corps troops approaching the shores could hear the gunfire covering the X Corps forces to the north, Clark forbade its use in the southern sector in the vain hope that the Germans would be surprised. They weren't, of course, and the ensuing heavy enemy artillery barrage caused heavy casualties and spread fear and confusion among the troops.

--FOLLOW-ON, ALTERNATIVES. Clark's assumption that the enemy would quickly withdraw colored his judgment about the need to

plan his advance beyond the beachhead, or to develop alternatives in the event that things did not go as planned. When the forces finally broke out, they were unable to keep up operational tempo in the difficult terrain. Allied engineers proved ingenious in improvising solutions to tough problems, but the heavily mechanized forces were simply unable to move quickly. In his battlefield diary, General John Lucas (who had assumed command of the VI Corps on September 20th), concluded wistfully that some "good old American horses and big, tough Missouri mules... might well have had a decisive impact."³³ Interestingly, a key follow-on task for the logisticians was a multi-continent search for mules to move the force's equipment up to the Volturno line.

CONCLUSION: WAS THIS TRIP NECESSARY?

The doctrine of opportunism, so often applicable in tactics, is a dangerous one to pursue in strategy. Dwight D. Eisenhower.³⁴

In hindsight, AVALANCHE cost a lot and produced little. While the Allies eventually gained a toehold on the Continent, AVALANCHE failed to alter the course of the war significantly, and even its short-term benefits were questionable. Ironically, the primary justification for the invasion--taking Italy out of the war--had been achieved even before the first troops splashed ashore, and the Italian surrender did not change the equation in the way the Allies had hoped. In addition, although AVALANCHE and its follow-on operations eventually did tie down a great many German divisions, the cost in Allied resources was substantial. Perhaps most ironic of all, tactical air power, the primary

reason for choosing Salerno over other alternatives, proved to be one of the least successful aspects of the operation. For most of the time, tactical air support was simply not available to the extent it should have been.³⁵

Perhaps the most significant contribution of AVALANCHE was in the form of lessons learned. AVALANCHE not only reinforced lessons that had not been fully absorbed after HUSKY--for example, the consequences of a lack of explicit directives and the failure to subordinate the air arm³⁶--but provided valuable insights into the difficulties that must be anticipated in attempting large-scale amphibious operations against a motivated and capable defender in a littoral situation.

* * *

AVALANCHE: LESSONS LEARNED

Among the many lessons of AVALANCHE:

Unity of Command and Unity of effort are key to operational success. One of the greatest weaknesses of AVALANCHE was the failure to synchronize air power effectively. Requests for support of the naval and ground phases of the operation had to be funneled through an "air coordinator" reporting directly to the Air Staff; decisions for ground air support often took 24 hours. Protests from ground and naval commanders fell on deaf ears until Eisenhower intervened.

Planning control should be centralized; operational control must be decentralized. The hodge-podge system of planning and command led to confusion and delays, with on-the-scene commanders

never certain that they were operating under the correct orders. Eisenhower himself soon realized his own errors in allowing his component commanders freedom to micromanage. He later acknowledged that his decision to take direct control of the air element in OVERLORD resulted from the "lesson so conclusively demonstrated at Salerno: when the battle needs the last ounce of available force, the commander must not be in the position of depending upon request and negotiation to get it."³⁷

Operational planning must consider the enemy's capabilities, not his intentions. ULTRA intercepts correctly reported Hitler's mood at a particular point in time; but minds change, and Hitler's did. By failing to anticipate the worst case German response, Clark's forces came to within a hair's-breadth of defeat.

The fewer the resources, the greater the need for synergy.

Amphibious operations are by their very nature exceedingly dangerous, for it is not so easy to pull back when the going gets tough. By spreading his forces too thin, Clark increased his risks and was not able to break out of the beachhead before the enemy had time to reinforce.

Operations, especially in secondary theaters, should be designed around goals, not resources. With only limited resources and vague, all-encompassing objectives, planners and decisionmakers from the top down attempted to do ever more with ever less, with the result that they got less than they might have. Had Eisenhower focused on the principle of Economy of Force, he might

have decided to postpone SLAPSTICK--or alternatively, to cancel AVALANCHE.

Surprise and Deception are especially important in amphibious operations, where the invader is already at a tactical disadvantage. Indeed, surprise is one of the central tenets of our Joint Doctrine: "Operational art...should influence the enemy's disposition before combat."³⁸ Indeed, a greater diversionary effort at Gaeta, for example, might have convinced the Germans to concentrate north of Naples, thus increasing the chances for Clark's forces to break out more quickly.

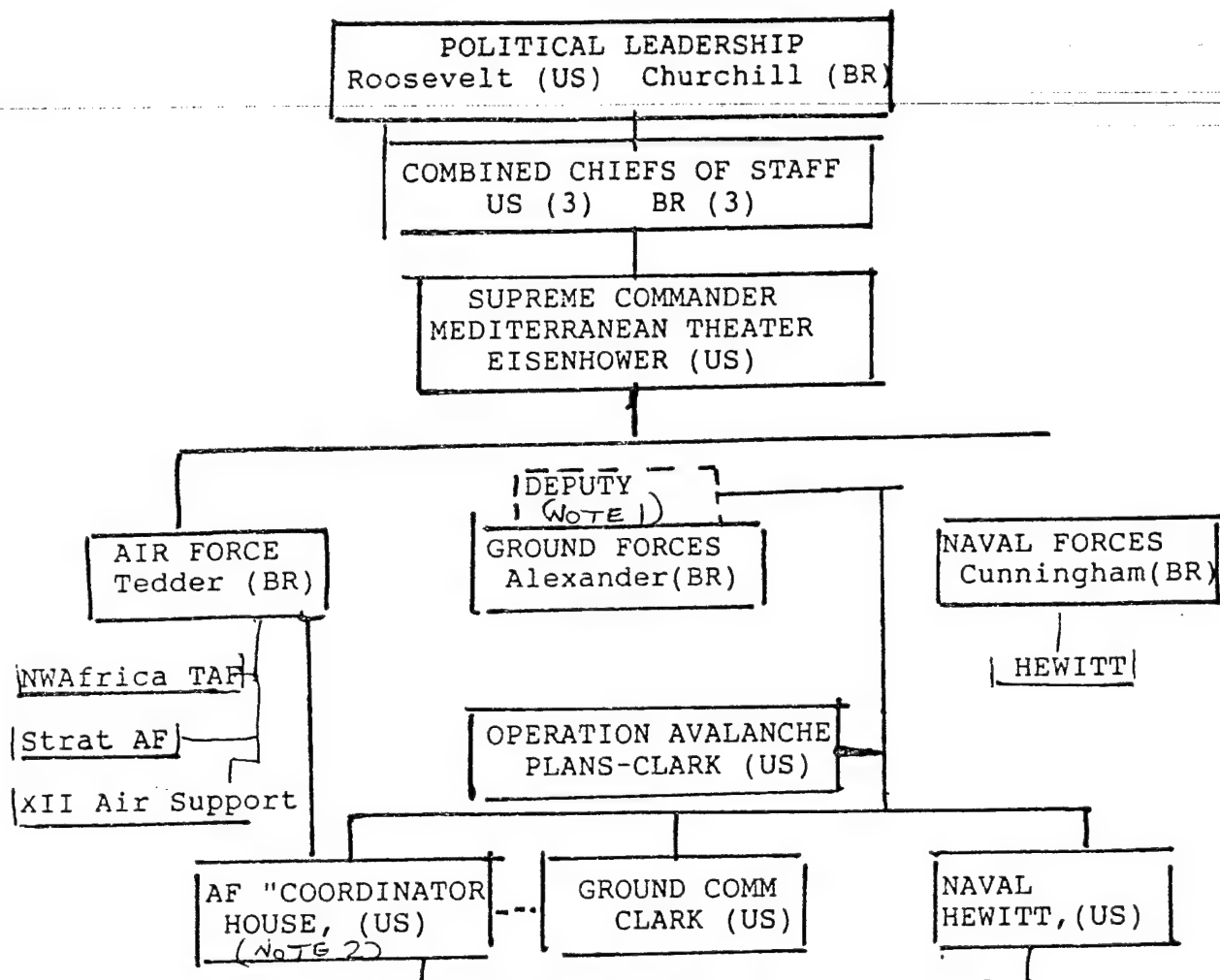
Air Power cannot win wars by itself, but if properly used, it can be a critical element of Joint Operations. Despite the thousands of tons of bombs dropped by the Strategic Air Forces in the pre-invasion phase of AVALANCHE, the Germans were still able to mount an effective counterattack on the land and in the air, including putting 120 aircraft over the beachhead two days after the landing--at a time when Allied Tactical Air commanders had decided to reduce fighter cover in the area.³⁹

Combined operations require cooperation and special attention to coordination. Alexander's failure to ensure that Montgomery was part of the team increased the risks to AVALANCHE.

From the first, fight hard, fight joint, and fight to win.

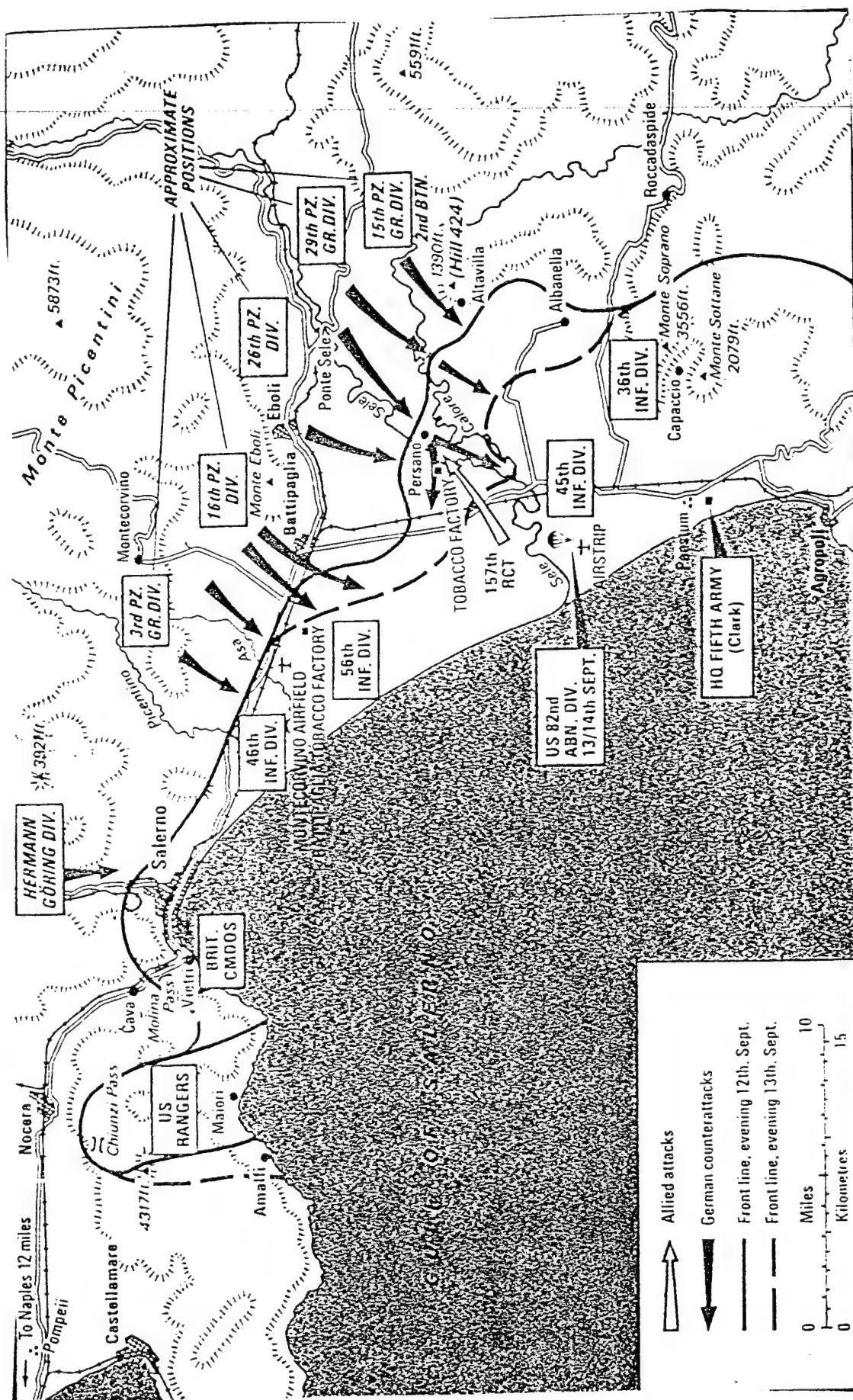
Failure to concentrate forces at the beginning of the operation almost proved fatal to the Allied effort. Once the Americans had committed to AVALANCHE, they should have put all the resources necessary into the effort, starting from Day One.

OPERATION AVALANCHE--COMMAND RELATIONSHIPS



- Note 1. Alexander nominal deputy, never formalized
 2. House could not direct operational air units, only request support.

FIG. 1.



The situation on 12th/13th September: the German counterattacks to split the Allied beachhead in two

SOURCE: Mason, Salerno, op. cit., p. 100.

NOTES

1. Mark W. Clark, Calculated Risk, New York: Harper and Brothers, 1950. Title of Chapter IX.
2. Lucian K. Truscott, Command Missions. New York: E. P. Dutton, 1954, p. 245.
3. Samuel Eliot Morison, History of United States Naval Operations in WWII: Sicily-Salerno-Anzio, (Vol. IX). Boston: Little-Brown, 1954, p. 11.
4. Ibid., p. 10
5. David Mason, Salerno: Foothold in Europe. New York: Ballantine Books, 1972. p. 11.
6. Blumenson, Martin. United States Army in World War II, The Mediterranean Theater of Operations: Salerno to Cassino. U.S. Army, Office of the Chief of Military History. Washington, D. C., 1969, p. 176.
7. Ibid, p. 10.
8. Ibid., p. 13
9. Morison, op. cit., 232.
10. Blumenson, op.cit., 23.
11. Dwight D. Eisenhower, Crusade in Europe. New York: Doubleday, 1954. p. 184
12. Eric Morris, Salerno: A Military Fiasco. New York: Stein and Day, 1983. p.17
13. C.J.C. Molony, The Mediterranean and Middle East. Vol. V. London: Her Majesty's Stationery Office: 1973, p. 18.
14. Dominick Graham and Shelford Bidwell. Tug of War: The Battle for Italy , 1943-45. New York: St Martin's Press, 1986. p. 33.
15. Ibid., p. 36
16. John Strawson, The Italian Campaign. New York: Carrol & Graf, 1988. p. 141.
17. Graham, op. cit., pp. 30-31.
18. Clark., op. cit., p. 187.
19. Ibid., p. 185.

20. Blumenson., op. cit., p. 37.
21. Strawson, op. cit., p. 3
22. Clark, op. cit., 175.
23. Blumenson, op. cit. 175.
24. Wesley Frank Craven, The Army Air Forces in World War II. Vol. 22. Chicago: University of Chicago, 1949. p. 488
25. Morrison, op. cit., 258.
26. Morris, op. cit., p. 16.
27. Ibid., p. 33.
28. Clark., op. cit., p. 184.
29. Ralph Mavrogordato. "Hitler's Decision on the Defense of Italy," in Command Decisions. U.S. Army, Chief of Military History. Washington, DC, 1960, pp. 313-4.
30. Graham, op. cit., p. 38.
31. Eisenhower, op. cit., p. 188.
32. Hoffmann, Jon T. "The Legacy and Lessons of the Campaign in Italy," in Marine Corps Gazette, January 1994, p. 68.
33. John P. Lucas. From Algiers to Anzio. Unpub. MSS, 28 October 1948. Newport, Naval War College Collection. p. 179.
34. Eisenhower, op. cit., 169.
35. Blumenson, op. cit., pp. 102-3.
36. U.S. Military Academy, Department of Military Engineering. Operations in Sicily and Italy. West Point, 1947. pp. 16-17.
37. Eisenhower, op. cit., p. 222.
38. U.S. Joint Staff, Joint Pub 3-0: Doctrine for Joint Operations, 9 September 1993. P. II-3
39. Blumenson, op. cit., p. 102.

BIBLIOGRAPHY

- Badoglio, Pietro. Italy in the Second World War. Westport, CT.: Greenwood Press, 1948.
- Blumenson, Martin. United States Army in World War II, The Mediterranean Theater of Operations: Salerno to Cassino. U.S. Army, Office of the Chief of Military History. Washington, D. C., 1969
- _____. "The Salerno Landings: A Campaign of Attrition," Army. Sept. 1993.
- Churchill, Winston S. The Second World War: Closing the Ring. Boston: Houghton Mifflin, 1951.
- Clark, Mark W. Calculated Risk. New York: Harper and Brothers, 1950.
- Craven, Wesley Frank. The Army Air Forces in World War II. Vol. 22. Chicago: University of Chicago, 1949.
- Eisenhower, Dwight D. Crusade in Europe. New York: Doubleday, 1954.
- Graham, Dominick and Shelford Bidwell. Tug of War: The Battle for Italy, 1943-45. New York: St Martin's Press, 1986.
- Herrly, Peter F. and Lilian A. Pfluke. "Southern Italy: Strategic Confusion, Operational Frustration." JFQ, Spring 1994.
- Hoffmann, Jon T. "The Legacy and Lessons of the Campaign in Italy," in Marine Corps Gazette, January 1994.
- Howard, Michael. The Mediterranean Strategy in the Second World War. London: Greenhill Books, 1968.
- Liddell Hart, B. H. "The Value of Amphibious Flexibility and Forces." Journal of the Royal United Service Institute. Vol. CV, no. 620, Nov 1960.
- Lucas, John P. From Algiers to Anzio. Unpub. MSS, 28 October 1948. Newport, Naval War College Collection.
- Mason, David. Salerno: Foothold in Europe. New York: Ballantine Books, 1972.
- Mavrogordato, Ralph S. "Hitler's Decision on the Defense of Italy," in Command Decisions. U.S. Army, Chief of Military History. Washington, DC, 1960.
- Molony, C.J.C. The Mediterranean and Middle East. Vol. V. London: Her Majesty's Stationery Office: 1973.

Morris, Eric. Salerno: A Military Fiasco. New York: Stein and Day, 1983

Morison, Samuel E. History of United States Naval Operations in WWII: Sicily-Salerno-Anzio, (Vol. IX). Boston: Little-Brown, 1954.

Pond, Hugh. Salerno. London: William Kimber, 1961.

Strasser, Joseph C. "The Role of Naval Forces in Combat," in Naval Forward Presence and the National Military Strategy, Robert L. Pfaltzgraff, Jr. and Richard H Shultz, Jr., eds., Naval Institute Press, 1993.

Strawson, John. The Italian Campaign. New York: Carrol & Graf 1988.

Truscott, Lucian K. Command Missions. New York: E. P. Dutton, 1954.

U.S. Department of the Army. FM 100-5: Operations. June 1993.

U.S. Joint Staff. Joint Pub 3-0: Doctrine for Joint Operations. 9 September 1993.

U.S. Joint Staff. Joint Pub 3-02: Joint Doctrine for Amphibious Operations: 8 October 1992.

U.S. Marine Corps, U.S. Navy Department. FMFM-1: Warfighting. Washington D.C., 6 March 1989

U.S. Navy Department. Forward...From the Sea. Washington, D.C., np, nd.

U.S. Navy Department. ...From the Sea, Preparing the Naval Service for the 21st Century. September 1992.

U.S. Military Academy, Department of Military Engineering. Operations in Sicily and Italy. West Point, 1947.